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## Release Note for MicroRB-10035-MLP Lot No. 5021xxLOWx, EE50212xLO, 02115LOWAZ, 2114LOWCZZ

### Parts Tested

- MicroRB-10035-MLP-TR
- MicroRB-10035-MLP-TR1

### APPLICATION NOTE

#### LOT NUMBERS

02115LOWAZ	502116LOWC	502119LOWB	502121LOWC	EE502120LO
2114LOWCZZ	502117LOWA	502119LOWC	502122LOWB	EE502123LO
502113LOWB	502117LOWC	502120LOWA	502122LOWC	
502114LOWA	502118LOWA	502120LOWB	502123LOWA	
502114LOWB	502118LOWB	502121LOWA	502123LOWB	
502116LOWB	502118LOWC	502121LOWB	502123LOWC	

#### Test Summary

The following parameters are specific to the above-mentioned lots. All other performance parameters for this lot can be found in the product datasheet.

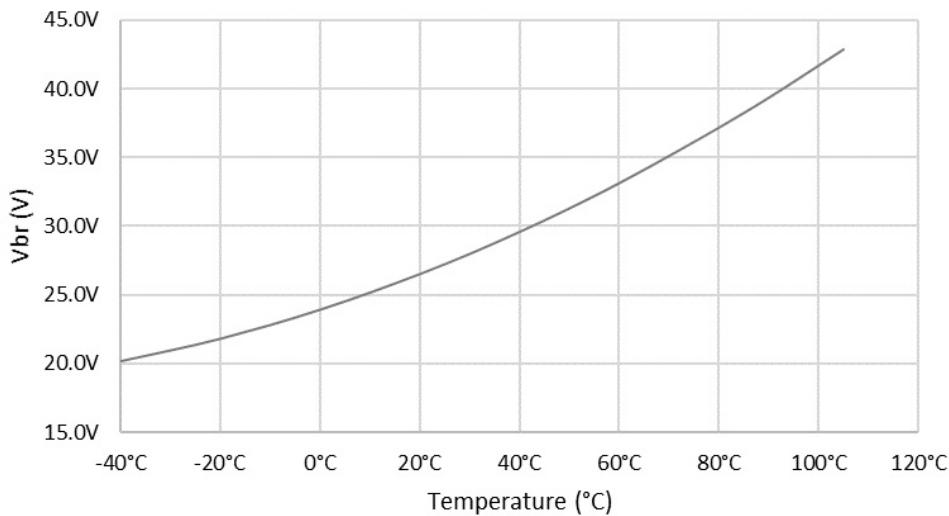
Table 1. LOT SPECIFIC PARAMETERS

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Breakdown voltage	Vbr2 <sup>1*</sup>	21°C	24.5	25.7	26.5	V
Ovvoltage	Vov	21°C		10	15	V

\*Vbr2 is defined as the value of the 0 intercept of a straight line fit to a plot of  $\sqrt{I}$  vs V, where I is measured dark current and V is applied reverse bias voltage and the part is in Geiger mode. (Measured on packaged parts.)

## Temperature Dependence of Breakdown Voltage

The value of  $V_{br2}^t$  as a function of temperature is plotted in Figure 1.



**Figure 1. Temperature Dependence of  $V_{br2}$**

Figure 1 can be approximated by the equation:

$$V_{br2} = a \times T^2 + b \times T + c \quad (\text{eq. 1})$$

where  $T$  = temperature in  $^{\circ}\text{C}$  and fit parameters are given in Table 2.

## Datasheet

The datasheet for this device is available at <https://www.onsemi.com/pub/Collateral/MICROB-SERIES-D.PDF>.

**Table 2. FIT PARAMETERS FOR  $V_{br2}(T)$**

a	5.99E-04
b	1.18E-01
c	23.90

<sup>t</sup> $V_{br2}$  is defined as the value of the 0 intercept of a straight line fit to a plot of  $\sqrt{I}$  vs  $V$ , where  $I$  is measured dark current and  $V$  is applied reverse bias voltage and the part is in Geiger mode. (Measured on packaged parts.)

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